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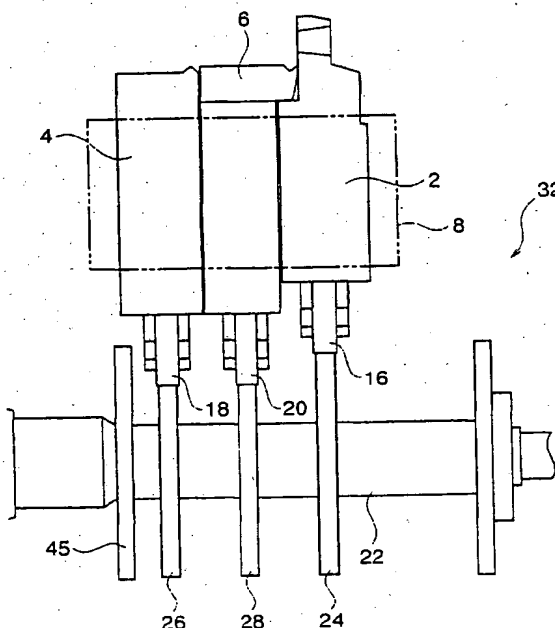
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(54) Controller in banding packing machine

(57) A controller in a banding packing machine is provided to set a correct condition when the controller for clamping, returning and tightening a band has a timing shifted from a predetermined timing. A controller in a banding packing machine comprises a cam shaft (22) to be rotated upon receipt of force from a driving source, a plurality of cams (24, 26, 28) provided on the cam shaft (22), a timing plate (45) provided on the cam shaft (22) and having holes (42, 44, 46) formed corresponding to predetermined positions such that a rotation position of the cam shaft (22) can be detected, and detecting means (50) for detecting when the holes (42, 44, 46) formed on the timing plate (45) reach the predetermined positions, wherein an inching mode is provided in which the rotation of the cam shaft (22) is stopped when the detecting means detects the predetermined holes (42, 44, 46) of the timing plate (45)

Fig. 2



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machine in a correct position. Therefore, a deterioration in productivity can be prevented.

[0028] While the embodiment of the present invention has been described above, the present invention is not restricted to the embodiment.

[0029] For example, while the number of the holes to be formed on the timing plate is three in the embodiment, any number of holes may be provided. Furthermore, the number of the cams to be provided on the cam shaft 22 is not restricted to three. Furthermore, the switching from the operation mode to the inching mode may be carried out by turning on a power switch while pressing a reset switch. Moreover, the reset switch is not restricted but another switch may be used. In the inching mode, furthermore, the operation may be stopped in each timing and the reset switch may be pressed to proceed to a next step.

[0030] Numerous modifications and alternative embodiments of the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only, and is provided for the purpose of teaching those skilled in the art the best mode of carrying out the invention. The details of the structure and/or function may be varied substantially without departing from the scope of the invention and all modifications which come within that scope are reserved.

Claims

1. A controller in a banding packing machine, comprising:

a cam shaft to be rotated upon receipt of force from a driving source;
a plurality of cams provided on the cam shaft;
a timing plate provided on the cam shaft and having a hole formed corresponding to a predetermined position such that a rotation position of the cam shaft can be detected; and
detecting means for detecting that the hole formed on the timing plate reaches the predetermined position,

wherein an inching mode is provided in which the rotation of the cam shaft is stopped when the detecting means detects the predetermined hole of the timing plate.

2. A controller in a banding packing machine as claimed in claim 1, wherein the controller is switchable between the inching mode for stopping the rotation of the cam shaft when the detecting means detects the predetermined hole of the timing plate, and an operation mode for causing the detecting means to detect the hole of the timing plate, thereby driving the cam shaft in a normal cycle.

Fig. 1

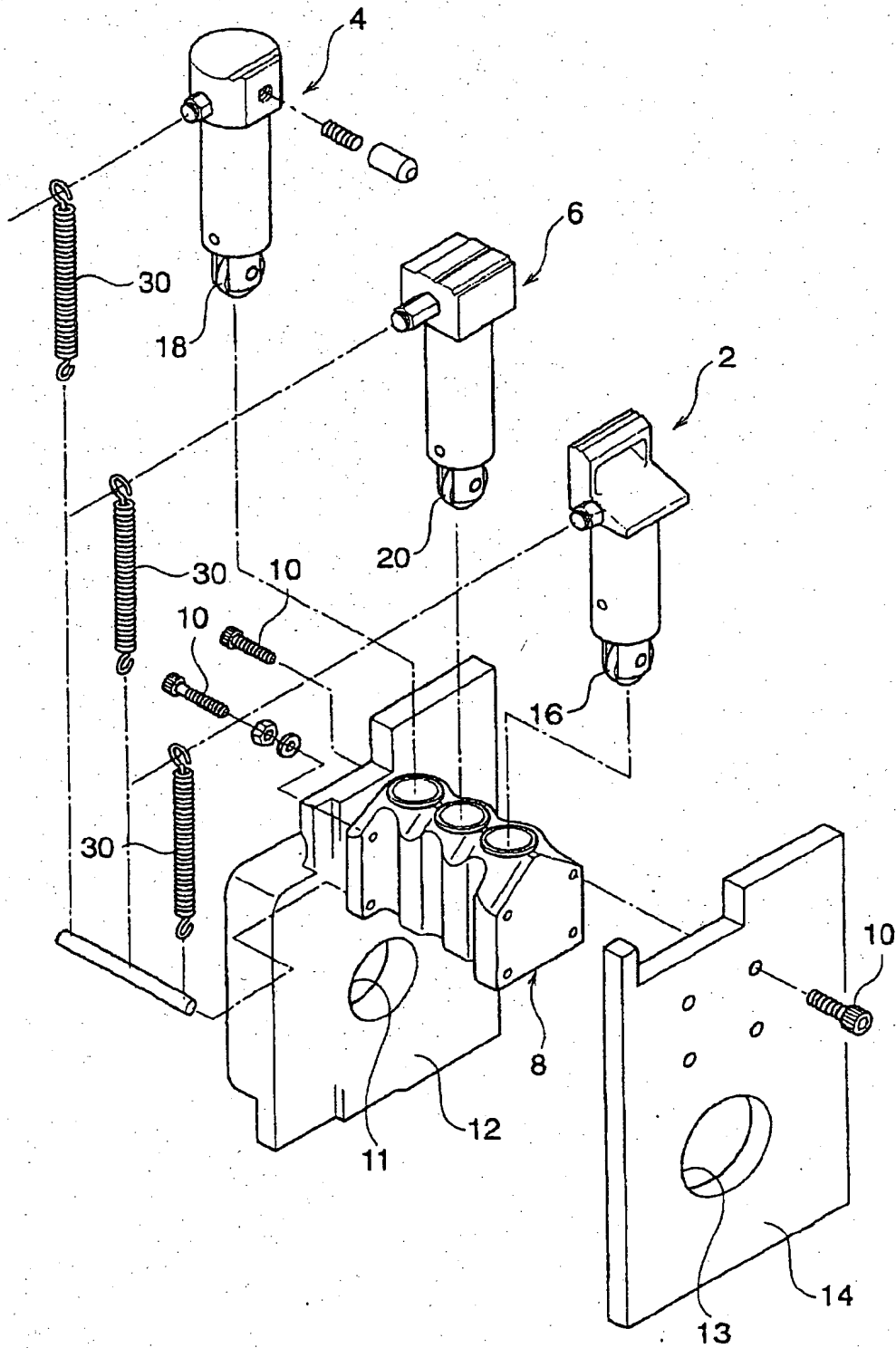


Fig. 2

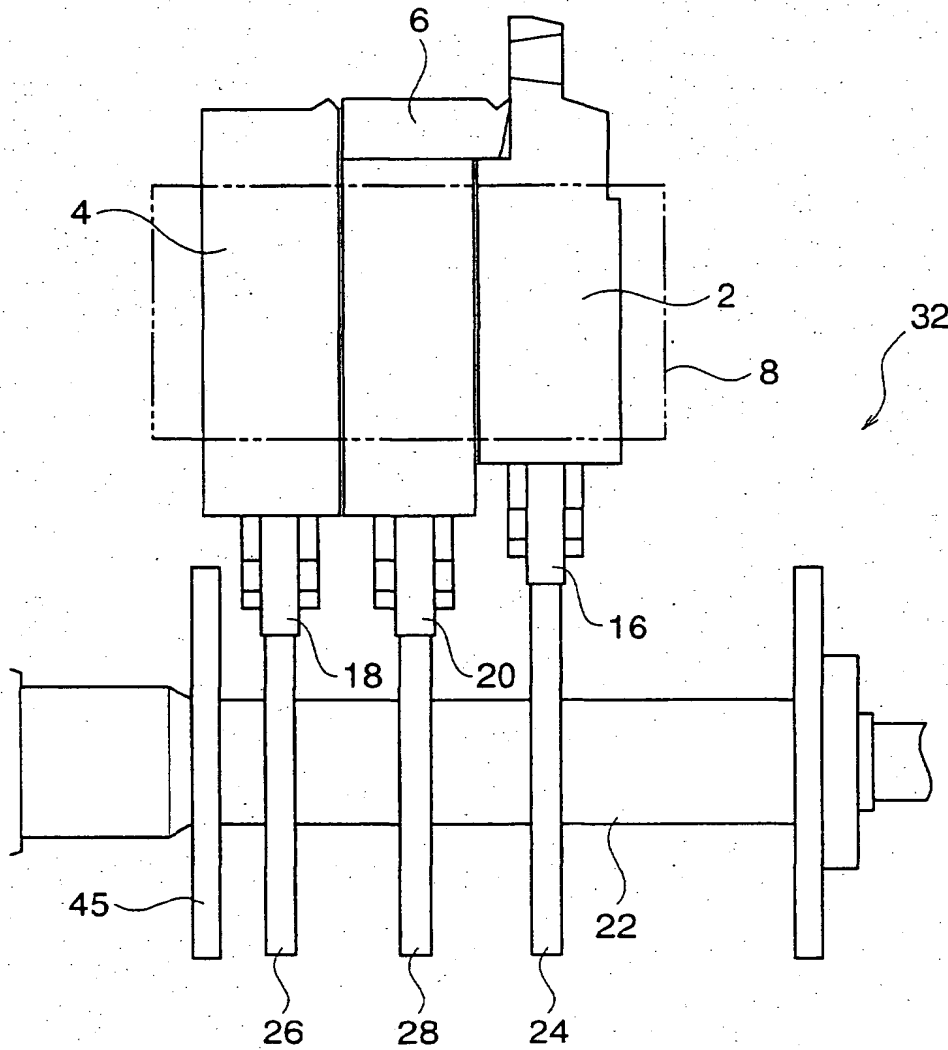


Fig. 3

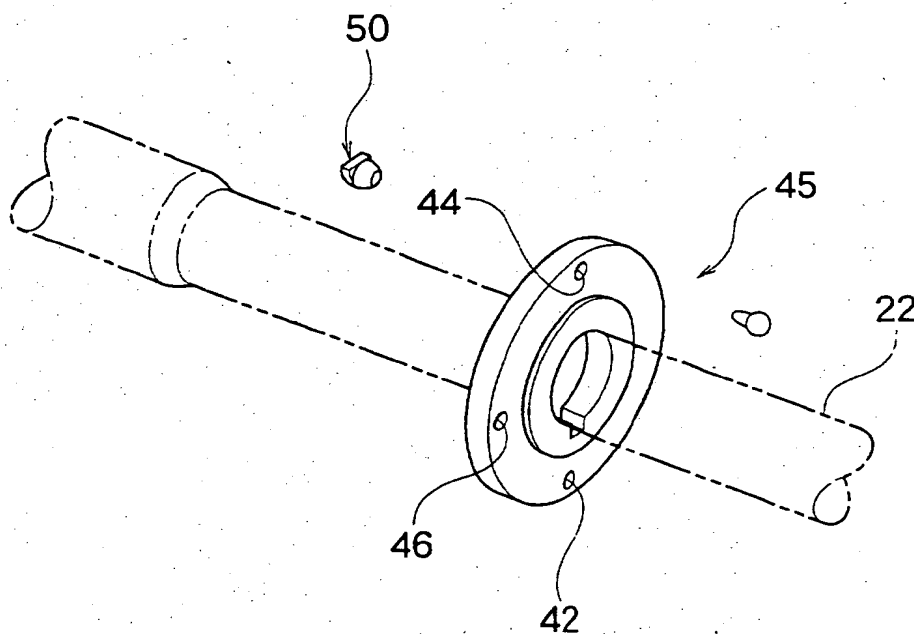
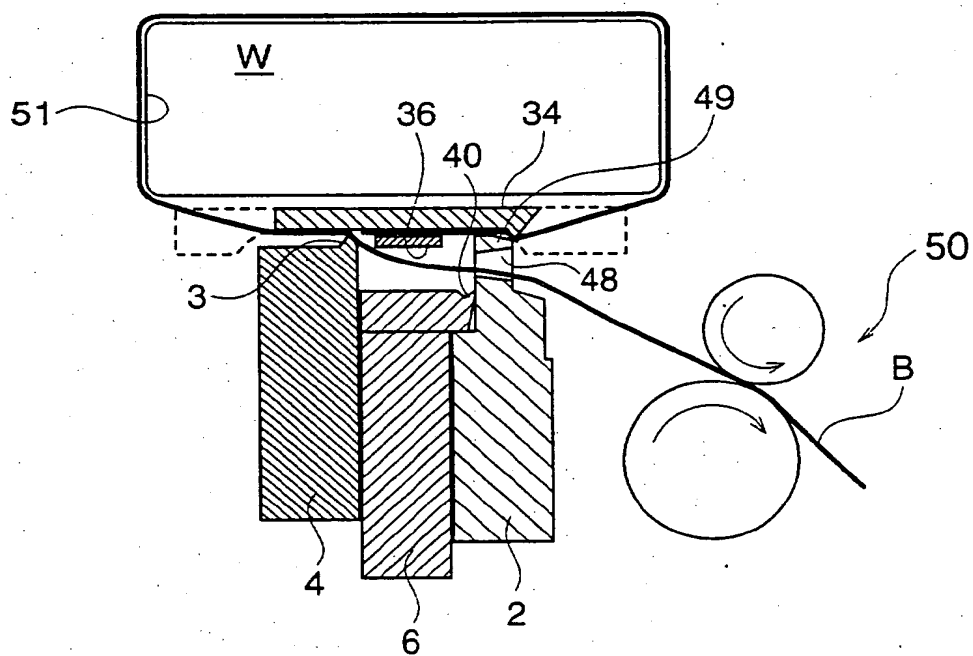


Fig. 4





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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (InCL7)
A	US 4 850 179 A (TAKAMI) 25 July 1989 (1989-07-25) * abstract * * column 3, line 18 - line 52; figures 1,2 * -----	1	B65B13/18
			TECHNICAL FIELDS SEARCHED (InCL7) B65B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 6 February 2002	Examiner Claeys, H
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background Q : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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06-02-2002

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82